EIS001020

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1 In the Code of Federal Regulations, (10 CFR 960.4-2-1) it states that a site shall be disqualified if the pre-waste emplacement groundwater travel time from the disturbed zone to the accessible environment is expected to be less than one thousand years along ANY pathway of likely and significant radionuclide travel.

Travel time can be determined in many ways. At the Yucca mountain site, Department of Energy scientists have been using bomb pulse water testing. Bomb-pulse water is water with high ratios of chlorine-36 to chlorine-35. Chlorine-36 is not that common in nature and high ratios are indicative of nuclear weapons testing that occurred approximately fifty years ago. Some water from rock samples along the exploratory tunnel at Yucca Mountain was found to have high ratios of chlorine-36 even at depths of 800 feet. And, according to the Draft Environmental Impact Statement, this is indicative of "very young water". (DEIS p. 3-46)

If water has already seeped 800 feet down through faults, fractures and breccias, which are rock fragments that have been melded together, in the past fifty years, then it is possible that it will reach the underlying water table within 1000 years. After reaching the water table, the contamination could become accessible to people, cattle and crops. According to the Department of Energy guidelines, this potential contamination is a reason for disqualification.

I expect many people will say that although the water travels fast, there isn't much precipitation in the Yucca mountain area. However, according to what I have read in the Draft Environmental Impact Statement, an average of one-third inch per year actually reaches the repository area. And, in my opinion, any amount of water reaching the area and possibly transporting any amount of radionuclides demonstrates the need for more research before such an important decision is made.

If we have learned anything from our past experiences with nuclear waste, it is that we need to be 100 percent sure of what we are doing BEFORE we do it. It is bad enough that my generation has to deal with the question of how to store it. I do not want to make my grandchildren have to think about how to clean it up. I am not saying that there is no solution. However, I am saying, or rather asking that this time around we look before we leap.